

OIPE

RAW SEQUENCE LISTING

DATE: 01/24/2002

PATENT APPLICATION: US/09/899,917

99.917 TIME: 19:23:38

Input Set: N:\Crf3\RULE60\09899917.raw
Output Set: N:\CRF3\01242002\I899917.raw

SEQUENCE LISTING

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3 (1) GENERAL INFORMATION:
             (i) APPLICANT: Olsen, Henrik S.
      5
      6
                            Ruben, Steven M.
            (ii) TITLE OF INVENTION: Human Oncogene Induced Secreted Protein I
      8
     10
           (iii) NUMBER OF SEQUENCES: 17
            (iv) CORRESPONDENCE ADDRESS:
     12
                  (A) ADDRESSEE: Sterne, Kessler Goldstein & Fox P.L.L.C.
     13
                  (B) STREET: 1100 New York Ave., NW, Suite 600
     14
                  (C) CITY: Washington
     15
                  (D) STATE: DC
     16
                  (E) COUNTRY: USA
     17
                                                                 ENTERED
                  (F) ZIP: 20005-3934
     18
     20
             (V) COMPUTER READABLE FORM:
                  (A) MEDIUM TYPE: Floppy disk
     21
     22
                  (B) COMPUTER: IBM PC compatible
     23
                  (C) OPERATING SYSTEM: PC-DOS/MS-DOS
                  (D) SOFTWARE: PatentIn Release #1.0, Version #1.30
     24
     26
            (vi) CURRENT APPLICATION DATA:
C--> 27
                  (A) APPLICATION NUMBER: US/09/899,917
C--> 28
                  (B) FILING DATE: 09-Jul-2001
     39
                  (C) CLASSIFICATION:
     36
           (vii) PRIOR APPLICATION DATA:
                  (A) APPLICATION NUMBER: 08/994,962
     32
     33
                  (B) FILING DATE:
     37
                  (A) APPLICATION NUMBER: US 60/037,388
                  (B) FILING DATE: 07-FEB-1997
     38
          (viii) ATTORNEY/AGENT INFORMATION:
     41
     42
                  (A) NAME: Steffe, Eric K.
                  (B) REGISTRATION NUMBER: 36,688
     43
     44
                  (C) REFERENCE/DOCKET NUMBER: 1488.0440002
            (ix) TELECOMMUNICATION INFORMATION:
     46
                  (A) TELEPHONE: 202-371-2600
     47
     48
                  (B) TELEFAX: 202-371-2540
     51
        (2) INFORMATION FOR SEQ ID NO: 1:
             (i) SEQUENCE CHARACTERISTICS:
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                  (A) LENGTH: 860 base pairs
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                  (B) TYPE: nucleic acid
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                  (C) STRANDEDNESS: double
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                  (D) TOPOLOGY: linear
     59
            (ii) MOLECULE TYPE: cDNA
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            (ix) FEATURE:
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                  (A) NAME/KEY: CDS
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Input Set : N:\Crf3\RULE60\09899917.raw
Output Set: N:\CRF3\01242002\1899917.raw

64 (B) LOCATION: 20505	
66 (ix) FEATURE:	
67 (A) NAME/KEY: sig_peptide	
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70 (ix) FEATURE:	
71 (A) NAME/KEY: mat_peptide	
72 (B) LOCATION: 80505	
75 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1:	E 2
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78 Met Lys Gly Phe Thr Ala Thr Leu Phe Leu Trp	
79 -20 -15 -10	100
81 ACT CTG ATT TTT CCC AGC TGC AGT GGA GGC GGC GGT GGG AAA GCC TGG	100
82 Thr Leu Ile Phe Pro Ser Cys Ser Gly Gly Gly Gly Lys Ala Trp	
83 -5 1 5	4.40
85 CCC ACA CAC GTG GTC TGT AGC GAC AGC GGC TTG GAA GTG CTC TAC CAG	148
86 Pro Thr His Val Val Cys Ser Asp Ser Gly Leu Glu Val Leu Tyr Gln	
87 10 15 20	
89 AGT TGC GAT CCA TTA CAA GAT TTT GGC TTT TCT GTT GAA AAG TGT TCC	196
90 Ser Cys Asp Pro Leu Gln Asp Phe Gly Phe Ser Val Glu Lys Cys Ser	
91 25 30 35	
93 AAG CAA TTA AAA TCA AAT ATC AAC ATT AGA TTT GGA ATT ATT CTG AGA	244
94 Lys Gln Leu Lys Ser Asn Ile Asn Ile Arg Phe Gly Ile Ile Leu Arg	
95 40 45 50 55	
97 GAG GAC ATC AAA GAG CTT TTT CTT GAC CTA GCT CTC ATG TCT CAA GGC	292
98 Glu Asp Ile Lys Glu Leu Phe Leu Asp Leu Ala Leu Met Ser Gln Gly	
99 60 65 70	
101 TCA TCT GTT TTG AAT TTC TCC TAT CCC ATC TGT GAG GCG GCT CTG CCC	340
102 Ser Ser Val Leu Asn Phe Ser Tyr Pro Ile Cys Glu Ala Ala Leu Pro	
103 75 80 85	
105 AAG TTT TCT TTC TGT GGA AGA AGG AAA GGA GAG CAG ATT TAC TAT GCT	388
106 Lys Phe Ser Phe Cys Gly Arg Arg Lys Gly Glu Gln Ile Tyr Tyr Ala	
107 90 95 100	
109 GGG CCT GTC AAT AAT CCT GAA TTT ACT ATT CCT CAG GGA GAA TAC CAG	436
110 Gly Pro Val Asn Asn Pro Glu Phe Thr Ile Pro Gln Gly Glu Tyr Gln	
111 105 110 115	
113 GTT TTG CTG GAA CTG TAC ACT GAA AAA CGG TCC ACC GTG GCC TGT GCC	484
114 Val Leu Leu Glu Leu Tyr Thr Glu Lys Arg Ser Thr Val Ala Cys Ala	
115 120 125 130 135	
117 AAT GCT ACT ATC ATG TGC TCC TGACTGTGGC CTGTAGCAAA AATCACAGCC	535
118 Asn Ala Thr Ile Met Cys Ser	
119 140	
121 AGCTGCATCT CGTGGGACCT CCAAGCTCCT CTGACTGAAC CTACTGTGGG AGGAGAAGCA	595
123 GCTGATGACA GAGAGAGGCT CTACAAAGAA GCGCCCCCAA AGAGTGCAGC TGCTAATTTT	655
125 AGTCCCAGGA CCAGACATCC CCAGACTCCA CAGATGTAAT GAAGTCCCCG AATGTATCTG	715
127 TTTCTAAGGA GCCTCTTGGC AGTCCTTAAG CAGTCTTGAG GGTCCATCCT TTTTCTCTAA	775
129 TTGGTCGCCT CCCACCAGAC TCACCTGCTT TTCAACTTTT TAGGAGTGCT TCCTCACAGT	835
131 TACCAAGAAA TAAAGAAAGC TGGCC	860
134 (2) INFORMATION FOR SEQ ID NO: 2:	
136 (i) SEQUENCE CHARACTERISTICS:	

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Input Set : N:\Crf3\RULE60\09899917.raw
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(A) LENGTH: 162 amino acids
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     145 Met Lys Gly Phe Thr Ala Thr Leu Phe Leu Trp Thr Leu Ile Phe Pro
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     148 Ser Cys Ser Gly Gly Gly Gly Lys Ala Trp Pro Thr His Val Val
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     151 Cys Ser Asp Ser Gly Leu Glu Val Leu Tyr Gln Ser Cys Asp Pro Leu
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                                      20
     154 Gln Asp Phe Gly Phe Ser Val Glu Lys Cys Ser Lys Gln Leu Lys Ser
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     157 Asn Ile Asn Ile Arq Phe Gly Ile Ile Leu Arq Glu Asp Ile Lys Glu
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     160 Leu Phe Leu Asp Leu Ala Leu Met Ser Gln Gly Ser Ser Val Leu Asn
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     163 Phe Ser Tyr Pro Ile Cys Glu Ala Ala Leu Pro Lys Phe Ser Phe Cys
     166 Gly Arg Arg Lys Gly Glu Gln Ile Tyr Tyr Ala Gly Pro Val Asn Asn
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                  95
                                     100
     169 Pro Glu Phe Thr Ile Pro Gln Gly Glu Tyr Gln Val Leu Leu Glu Leu
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     172 Tyr Thr Glu Lys Arg Ser Thr Val Ala Cys Ala Asn Ala Thr Ile Met
     173 125
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     175 Cys Ser
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                   (D) TOPOLOGY: Not Relevant
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              Lys Ser Cys Asp Pro Gln Gln Asp Phe Ala Phe Ser Ile Asp Arg Cys
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     199
              Ser Asp Val Thr Thr His Thr Phe Asp Ile Arg Ala Ala Met Val Leu
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    202
              Arg Gln Ser Ile Lys Glu Leu Tyr Ala Lys Val Asp Leu Ile Ile Asn
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    205
             Gly Lys Thr Val Leu Ser Tyr Ser Glu Thr Leu Cys Gly Pro Gly Leu
    206
                                  70
    208
             Ser Lys Leu Ile Phe Cys Gly Lys Lys Lys Gly Glu His Leu Tyr Tyr
    209
                                                  90
                              85
             Glu Gly Pro Ile Thr Leu Gly Ile Lys Glu Ile Pro Gln Gly Asp Tyr
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    212
                                              105
    214
             Thr Ile Thr Ala Arg Leu Thr Asn Glu Asp Arg Ala Thr Val Ala Cys
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DATE: 01/24/2002 TIME: 19:23:38

Input Set : N:\Crf3\RULE60\09899917.raw
Output Set: N:\CRF3\01242002\1899917.raw

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223 (A) LENGTH: 29 base pairs 224 (B) TYPE: nucleic acid 225 (C) STRANDEDNESS: single 226 (D) TOPOLOGY: linear 228 (li) MOLECULE TYPE: cDNA 233 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 4: 235 GACTCCATGG GCGGCGGTGG GAAAGCCTG 237 (2) INFORMATION FOR SEQ ID NO: 5: 239 (i) SEQUENCE CHARACTERISTICS: 240 (A) LENGTH: 30 base pairs 241 (B) TYPE: nucleic acid 242 (C) STRANDEDNESS: single 243 (D) TOPOLOGY: linear 245 (li) MOLECULE TYPE: cDNA 250 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 5: 252 GACTGATAGT GGGCACAGTA ATAGTAGCAT 253 (1) SEQUENCE DESCRIPTION: SEQ ID NO: 5: 254 (2) INFORMATION FOR SEQ ID NO: 6: 255 (1) SEQUENCE CHARACTERISTICS: 257 (A) LENGTH: 36 base pairs 258 (B) TYPE: nucleic acid 259 (C) STRANDEDNESS: single 260 (D) TOPOLOGY: linear 261 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 6: 262 GACTGGATCC GCCACTCATGA AGGGTTTCAC AGCCAC 271 (2) INFORMATION FOR SEQ ID NO: 7: 273 (i) SEQUENCE DESCRIPTION: SEQ ID NO: 6: 274 (A) LENGTH: 29 base pairs 275 (B) TYPE: nucleic acid 276 (C) STRANDEDNESS: single 277 (D) TOPOLOGY: linear 278 (ii) MOLECULE TYPE: cDNA 284 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 7: 286 GACTGGATCC GCCACTCATGA AGGGTTTCAC AGCCAC 297 (2) INFORMATION FOR SEQ ID NO: 7: 298 (2) INFORMATION FOR SEQ ID NO: 8: 290 (i) SEQUENCE DESCRIPTION: SEQ ID NO: 7: 298 GACTGGATCC AGCACCTCCATCTTGGG 299 (ii) MOLECULE TYPE: cDNA 284 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 7: 296 GACTGGATACC AGCACCTCCACTCTTTGGG 297 (2) INFORMATION FOR SEQ ID NO: 8: 290 (i) SEQUENCE CHARACTERISTICS: 291 (A) LENGTH: 36 base pairs 292 (B) TYPE: nucleic acid 293 (C) STRANDEDNESS: single 294 (D) TOPOLOGY: linear 295 (ii) MOLECULE TYPE: cDNA 301 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 8: 303 AGCTAAGGGTT CCCCCACCAT GAAGGGTTTC ACAGCCC 36			:	
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225 (C) STRANDEDNESS: single 226 (D) TOPOLOGY: linear 228 (31) MOLECULE TYPE: cDNA 233 (X1) SEQUENCE DESCRIPTION: SEQ ID NO: 4: 235 GACTCCATGG GCGGGCGGG GAAAGCCTG 29 237 (2) INFORMATION FOR SEQ ID NO: 5: 239 (i) SEQUENCE CHARACTERISTICS: 240 (A) LENGTH: 30 base pairs 241 (B) TYPE: nucleic acid 242 (C) STRANDEDNESS: Single 243 (D) TOPOLOGY: linear 245 (31) MOLECULE TYPE: cDNA 250 (X1) SEQUENCE DESCRIPTION: SEQ ID NO: 5: 252 GACTACATCT GCAGCACATG ATACTACCAT 254 (2) INFORMATION FOR SEQ ID NO: 6: 256 (1) SEQUENCE CHARACTERISTICS: 257 (A) LENGTH: 36 base pairs 258 (B) TYPE: nucleic acid 259 (C) STRANDEDNESS: single 260 (D) TOPOLOGY: linear 261 (X1) SEQUENCE CHARACTERISTICS: 262 (31) MOLECULE TYPE: cDNA 263 (X2) SEQUENCE CHARACTERISTICS: 264 (X3) SEQUENCE CHARACTERISTICS: 275 (X3) SEQUENCE CHARACTERISTICS: 276 (X4) SEQUENCE CHARACTERISTICS: 277 (A) LENGTH: 29 base pairs 278 (1) SEQUENCE CHARACTERISTICS: 279 (1) MOLECULE TYPE: cDNA 280 (C) STRANDEDNESS: single 277 (D) TOPOLOGY: linear 281 (C) STRANDEDNESS: single 278 (C) STRANDEDNESS: single 279 (11) MOLECULE TYPE: cDNA 280 (X1) SEQUENCE DESCRIPTION: SEQ ID NO: 7: 281 (C) STRANDEDNESS: single 282 (C) STRANDEDNESS: single 283 (2) INFORMATION FOR SEQ ID NO: 8: 290 (1) SEQUENCE CHARACTERISTICS: 291 (A) LENGTH: 36 base pairs 292 (B) TYPE: nucleic acid 293 (C) STRANDEDNESS: single 294 (D) TOPOLOGY: linear 295 (B) TYPE: nucleic acid 296 (C) STRANDEDNESS: single 297 (C) STRANDEDNESS: single 298 (C) STRANDEDNESS: single 299 (C) STRANDEDNESS: single 290 (1) SEQUENCE CHARACTERISTICS: 291 (A) LENGTH: 36 base pairs 292 (B) TYPE: nucleic acid 293 (C) STRANDEDNESS: single 294 (D) TOPOLOGY: linear 295 (A) TOPOLOGY: linear 296 (A) TOPOLOGY: linear 297 (D) TOPOLOGY: linear 298 (C) STRANDEDNESS: single 399 (C) STRANDEDNESS: single 390 (C) STRANDEDNESS: single 391 (C) STRANDEDNESS: single 393 (C) STRANDEDNESS: single 394 (D) TOPOLOGY: linear 395 (C) STRANDEDNESS: single 396 (A) TOPOLOGY: linear 397 (C) STRANDEDNESS: single 398 (C) STRANDEDNESS: single 399 (C) STRANDEDNESS: single 390 (C				
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258 (B) TYPE: nucleic acid 259 (C) STRANDEDNESS: single 260 (D) TOPOLOGY: linear 262 (ii) MOLECULE TYPE: cDNA 267 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 6: 269 GACTGGATCC GCCATCATCA AGGGTTTCAC AGCCAC 36 271 (2) INFORMATION FOR SEQ ID NO: 7: 273 (i) SEQUENCE CHARACTERISTICS: 274 (A) LENGTH: 29 base pairs 275 (B) TYPE: nucleic acid 276 (C) STRANDEDNESS: single 277 (D) TOPOLOGY: linear 279 (ii) MOLECULE TYPE: cDNA 284 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 7: 286 GACTGGTACC AGCAGCTGCA CTCTTTGGG 29 288 (2) INFORMATION FOR SEQ ID NO: 8: 290 (i) SEQUENCE CHARACTERISTICS: 291 (A) LENGTH: 36 base pairs 292 (B) TYPE: nucleic acid 293 (C) STRANDEDNESS: single 294 (D) TOPOLOGY: linear 295 (ii) MOLECULE TYPE: cDNA 301 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 8: 303 AGCTAAGCTT CCGCCACCAT GAAGGGTTTC ACAGCC 36				
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260 (D) TOPOLOGY: linear 262 (ii) MOLECULE TYPE: cDNA 267 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 6: 269 GACTGGATCC GCCATCATGA AGGGTTTCAC AGCCAC 271 (2) INFORMATION FOR SEQ ID NO: 7: 273 (i) SEQUENCE CHARACTERISTICS: 274 (A) LENGTH: 29 base pairs 275 (B) TYPE: nucleic acid 276 (C) STRANDEDNESS: single 277 (D) TOPOLOGY: linear 279 (ii) MOLECULE TYPE: cDNA 284 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 7: 286 GACTGGTACC AGCAGCTGCA CTCTTTGGG 29 288 (2) INFORMATION FOR SEQ ID NO: 8: 290 (i) SEQUENCE CHARACTERISTICS: 291 (A) LENGTH: 36 base pairs 292 (B) TYPE: nucleic acid 293 (C) STRANDEDNESS: single 294 (D) TOPOLOGY: linear 296 (ii) MOLECULE TYPE: cDNA 301 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 8: 303 AGCTAAGCTT CCGCCACCAT GAAGGGTTTC ACAGCC 36		(B) TYPE: nucleic acid		
262 (ii) MOLECULE TYPE: cDNA 267 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 6: 269 GACTGGATCC GCCATCATGA AGGGTTTCAC AGCCAC 36 271 (2) INFORMATION FOR SEQ ID NO: 7: 273 (i) SEQUENCE CHARACTERISTICS: 274 (A) LENGTH: 29 base pairs 275 (B) TYPE: nucleic acid 276 (C) STRANDEDNESS: single 277 (D) TOPOLOGY: linear 279 (ii) MOLECULE TYPE: cDNA 284 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 7: 286 GACTGGTACC AGCAGCTGCA CTCTTTGGG 29 288 (2) INFORMATION FOR SEQ ID NO: 8: 290 (i) SEQUENCE CHARACTERISTICS: 291 (A) LENGTH: 36 base pairs 292 (B) TYPE: nucleic acid 293 (C) STRANDEDNESS: single 294 (D) TOPOLOGY: linear 296 (ii) MOLECULE TYPE: cDNA 301 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 8: 303 AGCTAAGCTT CCGCCACCAT GAAGGGTTTC ACAGCC 36	259	(C) STRANDEDNESS: single	9	
267 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 6: 269 GACTGGATCC GCCATCATGA AGGGTTTCAC AGCCAC 271 (2) INFORMATION FOR SEQ ID NO: 7: 273 (i) SEQUENCE CHARACTERISTICS: 274 (A) LENGTH: 29 base pairs 275 (B) TYPE: nucleic acid 276 (C) STRANDEDNESS: single 277 (D) TOPOLOGY: linear 279 (ii) MOLECULE TYPE: cDNA 284 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 7: 286 GACTGGTACC AGCAGCTGCA CTCTTTGGG 29 288 (2) INFORMATION FOR SEQ ID NO: 8: 290 (i) SEQUENCE CHARACTERISTICS: 291 (A) LENGTH: 36 base pairs 292 (B) TYPE: nucleic acid 293 (C) STRANDEDNESS: single 294 (D) TOPOLOGY: linear 296 (ii) MOLECULE TYPE: cDNA 301 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 8: 303 AGCTAAGCTT CCGCCACCAT GAAGGGTTTC ACAGCC 36		(D) TOPOLOGY: linear		
269 GACTGGATCC GCCATCATGA AGGGTTTCAC AGCCAC 271 (2) INFORMATION FOR SEQ ID NO: 7: 273 (i) SEQUENCE CHARACTERISTICS: 274 (A) LENGTH: 29 base pairs 275 (B) TYPE: nucleic acid 276 (C) STRANDEDNESS: single 277 (D) TOPOLOGY: linear 279 (ii) MOLECULE TYPE: cDNA 284 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 7: 286 GACTGGTACC AGCAGCTGCA CTCTTTGGG 29 288 (2) INFORMATION FOR SEQ ID NO: 8: 290 (i) SEQUENCE CHARACTERISTICS: 291 (A) LENGTH: 36 base pairs 292 (B) TYPE: nucleic acid 293 (C) STRANDEDNESS: single 294 (D) TOPOLOGY: linear 296 (ii) MOLECULE TYPE: cDNA 301 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 8: 303 AGCTAAGCTT CCGCCACCAT GAAGGGTTTC ACAGCC 36	262	(ii) MOLECULE TYPE: cDNA		
271 (2) INFORMATION FOR SEQ ID NO: 7: 273 (i) SEQUENCE CHARACTERISTICS: 274 (A) LENGTH: 29 base pairs 275 (B) TYPE: nucleic acid 276 (C) STRANDEDNESS: single 277 (D) TOPOLOGY: linear 279 (ii) MOLECULE TYPE: cDNA 284 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 7: 286 GACTGGTACC AGCAGCTGCA CTCTTTGGG 29 288 (2) INFORMATION FOR SEQ ID NO: 8: 290 (i) SEQUENCE CHARACTERISTICS: 291 (A) LENGTH: 36 base pairs 292 (B) TYPE: nucleic acid 293 (C) STRANDEDNESS: single 294 (D) TOPOLOGY: linear 296 (ii) MOLECULE TYPE: cDNA 301 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 8: 303 AGCTAAGCTT CCGCCACCAT GAAGGGTTTC ACAGCC 36	267	(xi) SEQUENCE DESCRIPTION: SEQ	Q ID NO: 6:	
273 (i) SEQUENCE CHARACTERISTICS: 274 (A) LENGTH: 29 base pairs 275 (B) TYPE: nucleic acid 276 (C) STRANDEDNESS: single 277 (D) TOPOLOGY: linear 279 (ii) MOLECULE TYPE: cDNA 284 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 7: 286 GACTGGTACC AGCAGCTGCA CTCTTTGGG 29 288 (2) INFORMATION FOR SEQ ID NO: 8: 290 (i) SEQUENCE CHARACTERISTICS: 291 (A) LENGTH: 36 base pairs 292 (B) TYPE: nucleic acid 293 (C) STRANDEDNESS: single 294 (D) TOPOLOGY: linear 296 (ii) MOLECULE TYPE: cDNA 301 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 8: 303 AGCTAAGCTT CCGCCACCAT GAAGGGTTTC ACAGCC 36	269 G	ACTGGATCC GCCATCATGA AGGGTTTCAC A	AGCCAC	36
274 (A) LENGTH: 29 base pairs 275 (B) TYPE: nucleic acid 276 (C) STRANDEDNESS: single 277 (D) TOPOLOGY: linear 279 (ii) MOLECULE TYPE: cDNA 284 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 7: 286 GACTGGTACC AGCAGCTGCA CTCTTTGGG 29 288 (2) INFORMATION FOR SEQ ID NO: 8: 290 (i) SEQUENCE CHARACTERISTICS: 291 (A) LENGTH: 36 base pairs 292 (B) TYPE: nucleic acid 293 (C) STRANDEDNESS: single 294 (D) TOPOLOGY: linear 296 (ii) MOLECULE TYPE: cDNA 301 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 8: 303 AGCTAAGCTT CCGCCACCAT GAAGGGTTTC ACAGCC 36	271 (2) INFORMATION FOR SEQ ID NO: 7:		
275 (B) TYPE: nucleic acid 276 (C) STRANDEDNESS: single 277 (D) TOPOLOGY: linear 279 (ii) MOLECULE TYPE: cDNA 284 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 7: 286 GACTGGTACC AGCAGCTGCA CTCTTTGGG 29 288 (2) INFORMATION FOR SEQ ID NO: 8: 290 (i) SEQUENCE CHARACTERISTICS: 291 (A) LENGTH: 36 base pairs 292 (B) TYPE: nucleic acid 293 (C) STRANDEDNESS: single 294 (D) TOPOLOGY: linear 296 (ii) MOLECULE TYPE: cDNA 301 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 8: 303 AGCTAAGCTT CCGCCACCAT GAAGGGTTTC ACAGCC 36	273	(i) SEQUENCE CHARACTERISTICS:		
276 (C) STRANDEDNESS: single 277 (D) TOPOLOGY: linear 279 (ii) MOLECULE TYPE: cDNA 284 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 7: 286 GACTGGTACC AGCAGCTGCA CTCTTTGGG 29 288 (2) INFORMATION FOR SEQ ID NO: 8: 290 (i) SEQUENCE CHARACTERISTICS: 291 (A) LENGTH: 36 base pairs 292 (B) TYPE: nucleic acid 293 (C) STRANDEDNESS: single 294 (D) TOPOLOGY: linear 296 (ii) MOLECULE TYPE: cDNA 301 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 8: 303 AGCTAAGCTT CCGCCACCAT GAAGGGTTTC ACAGCC 36	274	(A) LENGTH: 29 base pair	îs	
277 (D) TOPOLOGY: linear 279 (ii) MOLECULE TYPE: cDNA 284 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 7: 286 GACTGGTACC AGCAGCTGCA CTCTTTGGG 29 288 (2) INFORMATION FOR SEQ ID NO: 8: 290 (i) SEQUENCE CHARACTERISTICS: 291 (A) LENGTH: 36 base pairs 292 (B) TYPE: nucleic acid 293 (C) STRANDEDNESS: single 294 (D) TOPOLOGY: linear 296 (ii) MOLECULE TYPE: cDNA 301 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 8: 303 AGCTAAGCTT CCGCCACCAT GAAGGGTTTC ACAGCC 36	275	(B) TYPE: nucleic acid		
279 (ii) MOLECULE TYPE: cDNA 284 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 7: 286 GACTGGTACC AGCAGCTGCA CTCTTTGGG 29 288 (2) INFORMATION FOR SEQ ID NO: 8: 290 (i) SEQUENCE CHARACTERISTICS: 291 (A) LENGTH: 36 base pairs 292 (B) TYPE: nucleic acid 293 (C) STRANDEDNESS: single 294 (D) TOPOLOGY: linear 296 (ii) MOLECULE TYPE: cDNA 301 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 8: 303 AGCTAAGCTT CCGCCACCAT GAAGGGTTTC ACAGCC 36	276	(C) STRANDEDNESS: single	2	
284 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 7: 286 GACTGGTACC AGCAGCTGCA CTCTTTGGG 29 288 (2) INFORMATION FOR SEQ ID NO: 8: 290 (i) SEQUENCE CHARACTERISTICS: 291 (A) LENGTH: 36 base pairs 292 (B) TYPE: nucleic acid 293 (C) STRANDEDNESS: single 294 (D) TOPOLOGY: linear 296 (ii) MOLECULE TYPE: cDNA 301 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 8: 303 AGCTAAGCTT CCGCCACCAT GAAGGGTTTC ACAGCC 36	277	(D) TOPOLOGY: linear		
286 GACTGGTACC AGCAGCTGCA CTCTTTGGG 288 (2) INFORMATION FOR SEQ ID NO: 8: 290 (i) SEQUENCE CHARACTERISTICS: 291 (A) LENGTH: 36 base pairs 292 (B) TYPE: nucleic acid 293 (C) STRANDEDNESS: single 294 (D) TOPOLOGY: linear 296 (ii) MOLECULE TYPE: cDNA 301 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 8: 303 AGCTAAGCTT CCGCCACCAT GAAGGGTTTC ACAGCC 36	279	(ii) MOLECULE TYPE: cDNA		
288 (2) INFORMATION FOR SEQ ID NO: 8: 290 (i) SEQUENCE CHARACTERISTICS: 291 (A) LENGTH: 36 base pairs 292 (B) TYPE: nucleic acid 293 (C) STRANDEDNESS: single 294 (D) TOPOLOGY: linear 296 (ii) MOLECULE TYPE: cDNA 301 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 8: 303 AGCTAAGCTT CCGCCACCAT GAAGGGTTTC ACAGCC 36	284	(xi) SEQUENCE DESCRIPTION: SEQ) ID NO: 7:	
290 (i) SEQUENCE CHARACTERISTICS: 291 (A) LENGTH: 36 base pairs 292 (B) TYPE: nucleic acid 293 (C) STRANDEDNESS: single 294 (D) TOPOLOGY: linear 296 (ii) MOLECULE TYPE: cDNA 301 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 8: 303 AGCTAAGCTT CCGCCACCAT GAAGGGTTTC ACAGCC 36	286 G	ACTGGTACC AGCAGCTGCA CTCTTTGGG		29
(A) LENGTH: 36 base pairs (B) TYPE: nucleic acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear (ii) MOLECULE TYPE: cDNA (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 8: 303 AGCTAAGCTT CCGCCACCAT GAAGGGTTTC ACAGCC 36	288 (2) INFORMATION FOR SEQ ID NO: 8:		
292 (B) TYPE: nucleic acid 293 (C) STRANDEDNESS: single 294 (D) TOPOLOGY: linear 296 (ii) MOLECULE TYPE: cDNA 301 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 8: 303 AGCTAAGCTT CCGCCACCAT GAAGGGTTTC ACAGCC 36	290	(i) SEQUENCE CHARACTERISTICS:		
293 (C) STRANDEDNESS: single 294 (D) TOPOLOGY: linear 296 (ii) MOLECULE TYPE: cDNA 301 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 8: 303 AGCTAAGCTT CCGCCACCAT GAAGGGTTTC ACAGCC 36	291	(A) LENGTH: 36 base pair	îs	
294 (D) TOPOLOGY: linear 296 (ii) MOLECULE TYPE: cDNA 301 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 8: 303 AGCTAAGCTT CCGCCACCAT GAAGGGTTTC ACAGCC 36	292	(B) TYPE: nucleic acid		
296 (ii) MOLECULE TYPE: cDNA 301 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 8: 303 AGCTAAGCTT CCGCCACCAT GAAGGGTTTC ACAGCC 36	293	(C) STRANDEDNESS: single	2	
301 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 8: 303 AGCTAAGCTT CCGCCACCAT GAAGGGTTTC ACAGCC 36	294	(D) TOPOLOGY: linear		
303 AGCTAAGCTT CCGCCACCAT GAAGGGTTTC ACAGCC 36	296	(ii) MOLECULE TYPE: cDNA		
	301	(xi) SEQUENCE DESCRIPTION: SEQ	O ID NO: 8:	
	303 A	GCTAAGCTT CCGCCACCAT GAAGGGTTTC A	CAGCC	36
305 (2) INFORMATION FOR SEQ ID NO: 9:	305 (2) INFORMATION FOR SEQ ID NO: 9:		

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/899,917

DATE: 01/24/2002 TIME: 19:23:38

Input Set : N:\Crf3\RULE60\09899917.raw
Output Set: N:\CRF3\01242002\1899917.raw

307	(i) SEQUENCE CHARACTERISTICS:	
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309	, ,	
3 L O	(C) STRANDEDNESS: single	
311	(D) TOPOLOGY: linear	
313	(ii) MOLECULE TYPE: cDNA	
318	(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 9:	
320	CAGTCTCGAG TTAAGCGTAG TCTGGGACGT CGTATGGGTA GGAGCACATG ATAGTAGCAT	60
322	TG	62
324	(2) INFORMATION FOR SEQ ID NO: 10:	
326	(i) SEQUENCE CHARACTERISTICS:	
327	(A) LENGTH: 29 base pairs	
328	(B) TYPE: nucleic acid	
329	(C) STRANDEDNESS: single	
330	(D) TOPOLOGY: linear	
332	(ii) MOLECULE TYPE: cDNA	
337	(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 10:	
339	GACTGGTACC AGCAGCTGCA CTCTTTGGG	29
341	(2) INFORMATION FOR SEQ ID NO: 11:	
343	(i) SEQUENCE CHARACTERISTICS:	
344	(A) LENGTH: 514 base pairs	
345	· · ·	
346	(C) STRANDEDNESS: double	
347	···	
349	• •	
354	(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 11:	
	NAATTCGCGA GATTTTTCCC AGCTGCAGTG GAGGCGGCGG TGGGAAAGCC TGGCCCACAC	60
	ACGTGGTCTG TAGCGACAGG CTTTGGAAGT GCTCTACCAG AGTTGCGATC CATTACAAGA	120
	TTTTGGCTTT TCTGTTGAAA AGTGTTCCAA GCAATTAAAA TCAAATATCA ACATTAGATT	180
	TGGAATTATT CTGAAGGACA TCAAAGAGCT TTTTCTTGAC CTAGCTCTCA TGTNTCAAGG	240
	CTCATCTGTT TTGAATTTCT CCTATCCCAT CTGTGAGGCG GCTCTGCCAA GTTTTCTTTC	300
	TGTGGAAGAA GGAAAGGAGA GCAGATTTAC TATGCTNGGG CTGTCAATAA TNCNGAATTT	360
	ACTATTTCCT CANGGGGGAT TACCAGGTTT TGCTGGGACT GTACAATGAA AAACGGTCCA	420
	CCGNGGCNGT GCCATGGTAC TATCGNGTGG TCCGACTGTG GCCNTAGGAA AATCACACCA	480
	TTGNATTCGG GGNCNCCAGT CCTTGATNAC CNAN	514
	(2) INFORMATION FOR SEQ ID NO: 12:	
376	(i) SEQUENCE CHARACTERISTICS:	
377	(A) LENGTH: 457 base pairs	
378	(B) TYPE: nucleic acid	
379	(C) STRANDEDNESS: double	
380	(D) TOPOLOGY: linear	
382	(ii) MOLECULE TYPE: cDNA	
387	(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 12:	
	CACAGCCACT CTCTTCCTCT GGACTCTAAT TTTNCCCAGC TGCAGTGGAG GCGGCGGTGG	60
	GAAAGCCTGG CCCACACAC TGGTCTGTAG CGACANGGCT TGGAAGTGCT CTACCAGAGT	120
	TGCGATCCAT TACAAGATTT TGGCTTTTCT GTTGAAAAGT GTTCCAAGCA ATTAAAATCA	180
	AATATCAACA TTAGATTTGG AATTATTCTG AGAGAGGACA TCAAAGAGCT TTTTCTTGAC	240
	CTAGCTCTCA TGTCTCAAGG CTCATCTGTT TTNAATTTCT CCTATCCCAT CTGTNAGGCG	300
	GCTCTGCCCA AGTTTTCTTT CTGTGGAAGA AGGAAAGGAG AGCAGATTTA CTATGCTGGG	360
223	GETETGECER AGTITICITI CIGIGGARGA AGGARAGGAG AGCAGATITA CIAIGCIGGG	500

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/899,917

DATE: 01/24/2002 TIME: 19:23:39

Input Set : N:\Crf3\RULE60\09899917.raw
Output Set: N:\CRF3\01242002\I899917.raw

 $L:27\ M:220\ C:$ Keyword misspelled or invalid format, [(A) APPLICATION NUMBER:]

L:28 M:220 C: Keyword misspelled or invalid format, [(B) FILING DATE:]

L:184 M:246 W: Invalid value of Alpha Sequence Header Field, [TOPOLOGY:], SeqNo=3 L:516 M:246 W: Invalid value of Alpha Sequence Header Field, [TOPOLOGY:], SeqNo=17